

USA Appln. No. 09/022,336  
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a pressure relief valve which allows gas to escape from the housing and which prevents oxygen gas from outside the housing to contact said negative electrode;

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a gas-permeable catalyst container in gas communication with said gas space, said container comprising a flame arresting material having pores of suitable size to permit gas to pass therethrough while being a barrier to a flame, said container being encased in a gas-permeable hydrophobic solid film; and

a catalyst arranged in said catalyst container for converting oxygen gas and hydrogen gas which is generated in the housing to water vapor.

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14. (Once amended) A cell according to claim 7 wherein said hydrophobic film comprises PTFE.

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15. (Once amended) A device for recombining gases in a storage battery; comprising:

a gas-permeable catalyst container, said container comprising a flame arresting material having pores of suitable size to permit gas to pass therethrough and which acts as a barrier to a flame;

a catalyst arranged within said container; and

a gas-permeable hydrophobic solid film encasing said container.

16. (Once amended) A device in accordance with claim 17 wherein said flame arrestor comprises a ceramic material.

17. (Once amended) A device in accordance with claim 15 wherein said hydrophobic film comprises PTFE.

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22. (Twice Amended) A device in accordance with claim 15 wherein said container has an outside diameter of about .6 inches and comprises alumina-porcelain, and said hydrophobic film comprises PTFE.

23. (Twice Amended) A device in accordance with claim 17 wherein said container is cylindrical.

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27. (Twice Amended) A vent assembly for sealing a VRLA battery cell having a sealed housing and a gas space within said housing, said device comprising:

a vent body through which gas from inside the housing can vent to outside the housing;

a pressure relief valve member within said vent body to allow excess gas to escape from the housing and which prevents gas outside the housing from entering the housing;

a gas-permeable catalyst container supported on said body to be in gas communication with said gas space when said vent assembly seals the battery cell, said catalyst container comprising a flame arresting material having pores of suitable size to permit gas to pass therethrough while being a barrier to a flame, said container being encased in a gas-permeable hydrophobic solid film; and

a catalyst arranged in said catalyst container for recombining oxygen gas and hydrogen gas generated in the cell to water vapor.

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38. (Once Amended) An assembly in accordance with claim 27 wherein said gas-permeable hydrophobic film comprises PTFE.

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40. (Once Amended) A device for recombining gases in a storage battery; comprising:

a gas-permeable catalyst container, said container being formed of a flame arresting material having pores of suitable size to permit gas to pass therethrough and which acts as a barrier to a flame;

a catalyst arranged within said container; and

means for making all portions of said container that are gas-permeable impermeable to any liquid water while permitting gas to pass through, said means including PTFE.

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42. (Once Amended) A catalyst device for recombining gases in a storage battery; comprising:

178 a gas-permeable catalyst container, said container being formed of a flame arresting material having pores of suitable size to permit gas to pass therethrough and which acts as a barrier to a flame;

a catalyst arranged within said container; and

a PTFE gas-permeable hydrophobic solid material attached externally to and surrounding said container in a manner so as to prevent liquid water from passing through said container when said device is combined with said storage battery.

~~Please add the following new claims:~~

--43. (New) A device in accordance with claim 14 wherein said film is wrapped around said container.

49 44. (New) A device in accordance with claim 15 wherein said film is wrapped around said container.

45. (New) A device in accordance with claim 40 wherein said PTFE comprises a film of PTFE.

46. (New) A device in accordance with claim 45 wherein said film is wrapped around said container.

47. (New) A device in accordance with claim 42 wherein said PTFE material is a film wrapped around said container.

48. (New) A device for combining gases within a storage battery; comprising:  
a catalyst container having an interior, said container comprising a flame arresting material having pores of suitable size to permit gas to pass between said interior and an exterior of said device and which acts as a barrier to a flame;

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a catalyst arranged within said interior, said catalyst capable of reacting oxygen gas and hydrogen gas to form water vapor; and

a gas permeable liquid water barrier comprising solid PTFE attached to said container and positioned to prevent liquid water from passing between said interior of said container and said exterior of said device.

49. (New) A device in accordance 48 wherein said barrier comprises a film wrapped around said container.--

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